

# Montana Portion of GYA Elk Population Distribution, Status and Trends

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***Montana Fish,  
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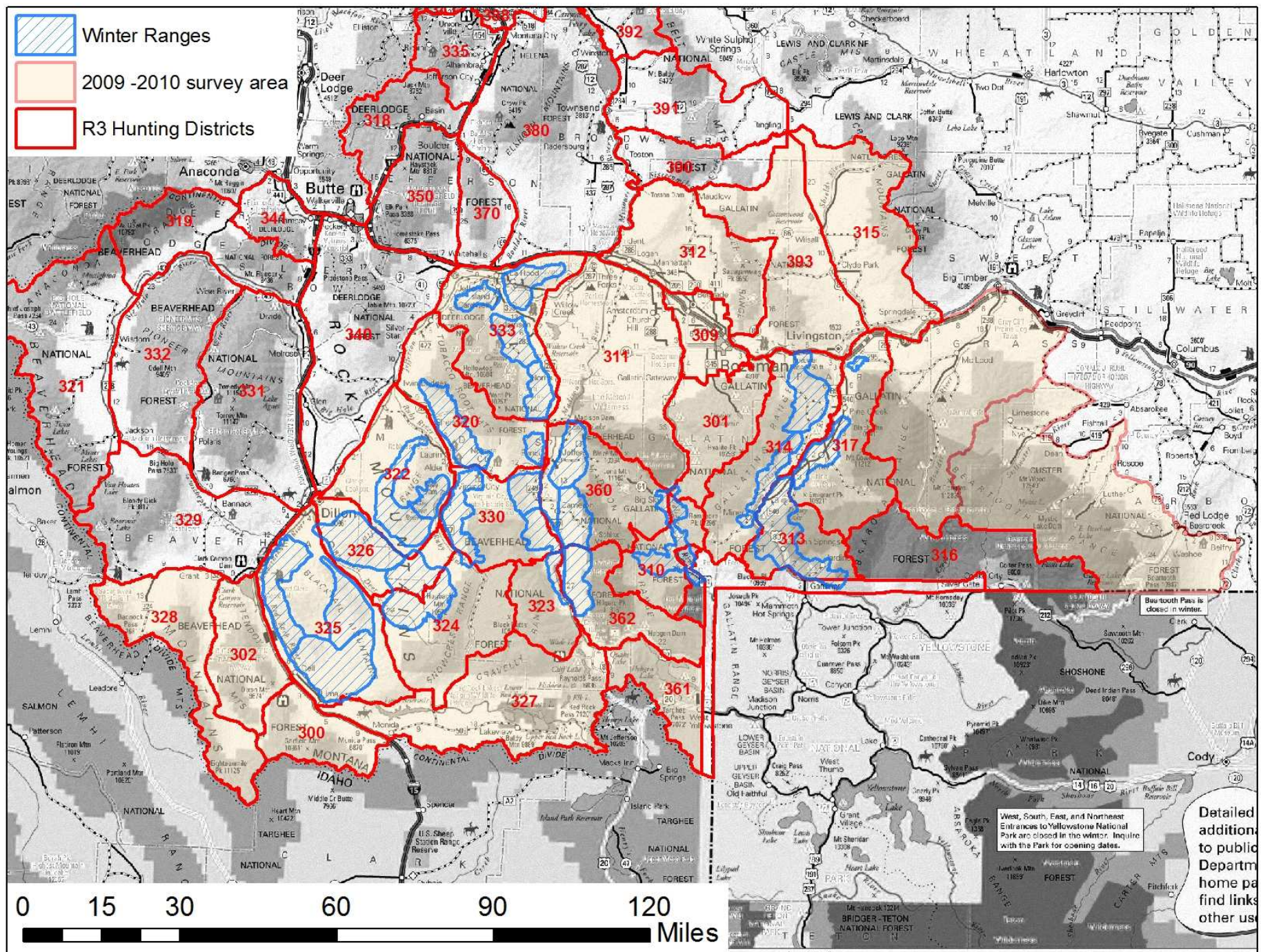
NPS photo

# Objective

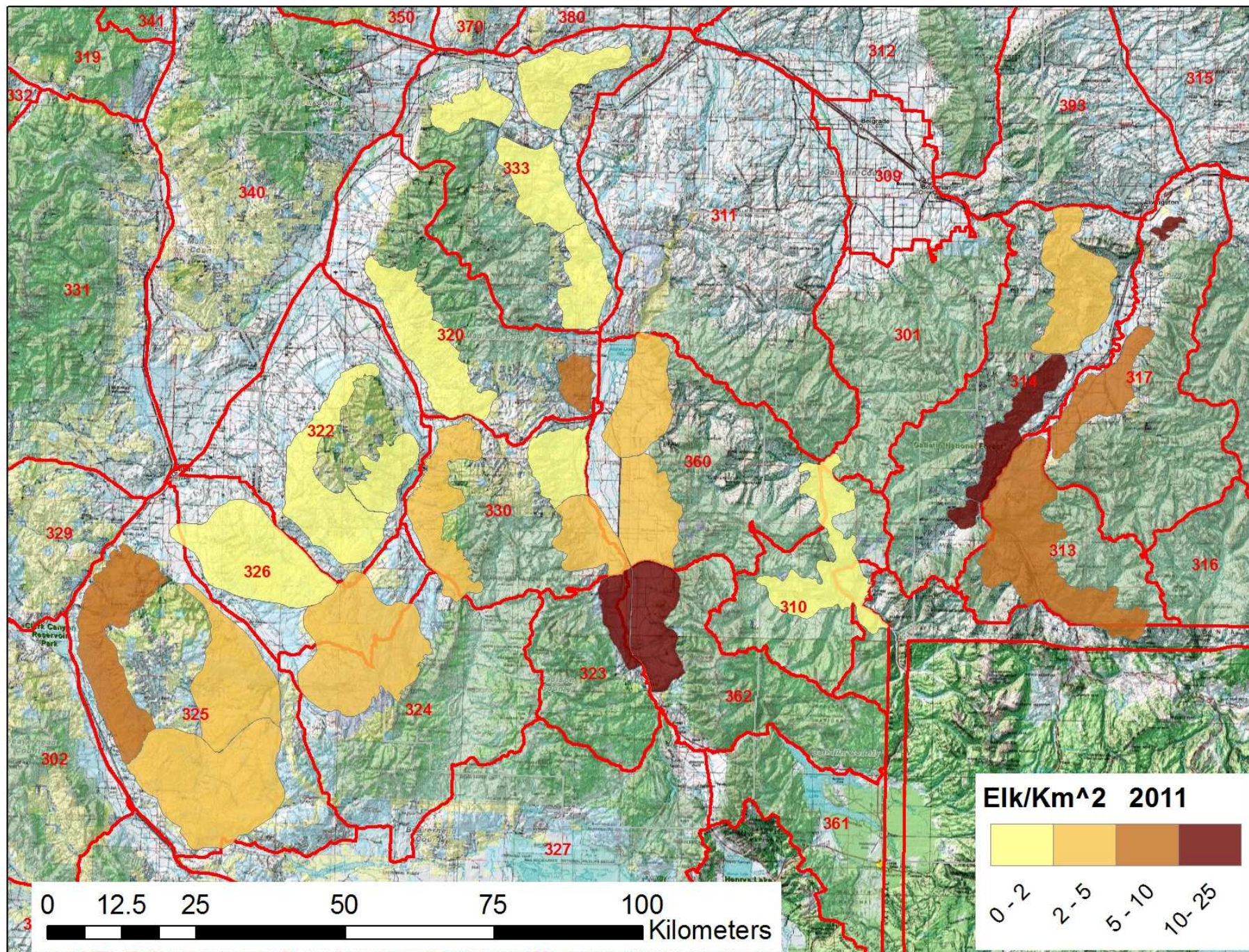
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- Describe GYA elk herd winter areas and density
- Describe population trends
- Describe summer movements
- Discuss management challenges and objectives











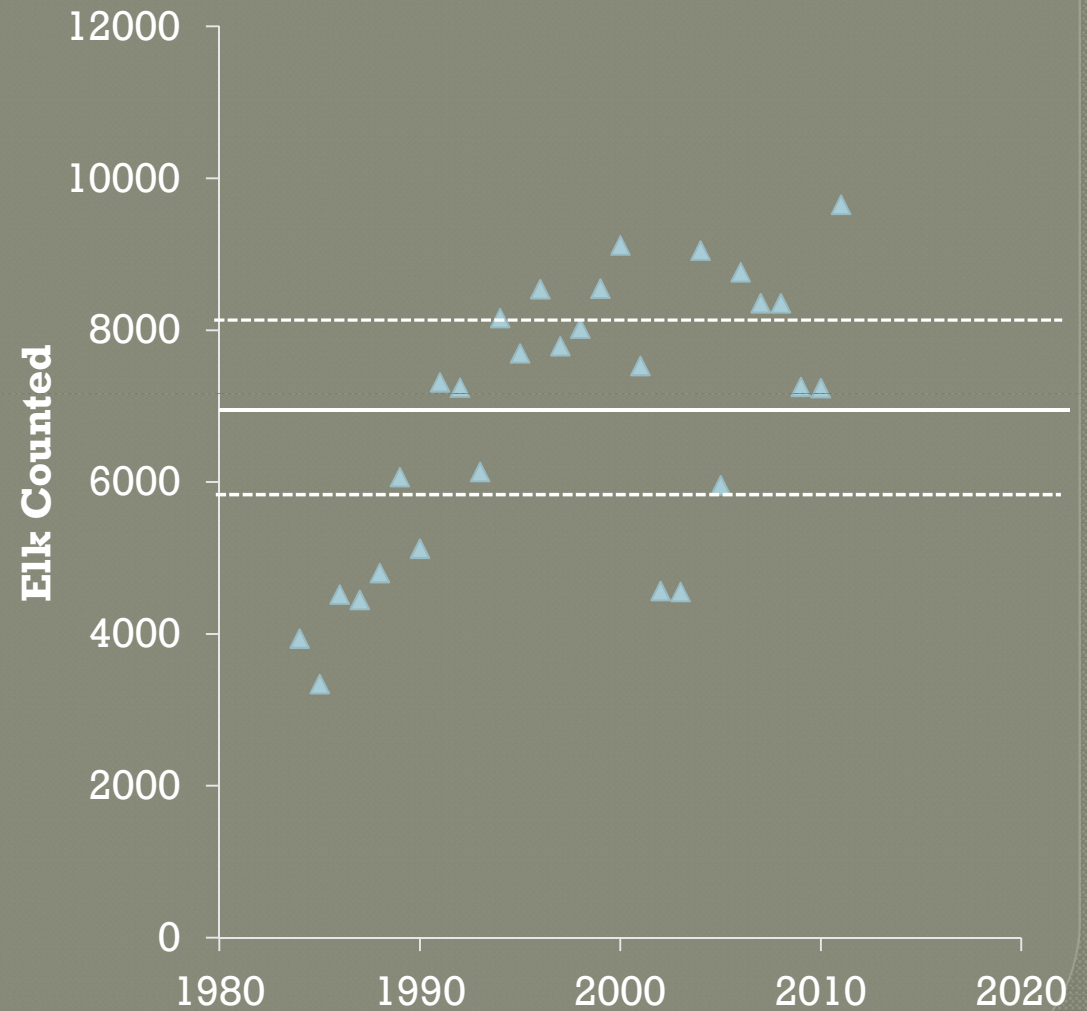
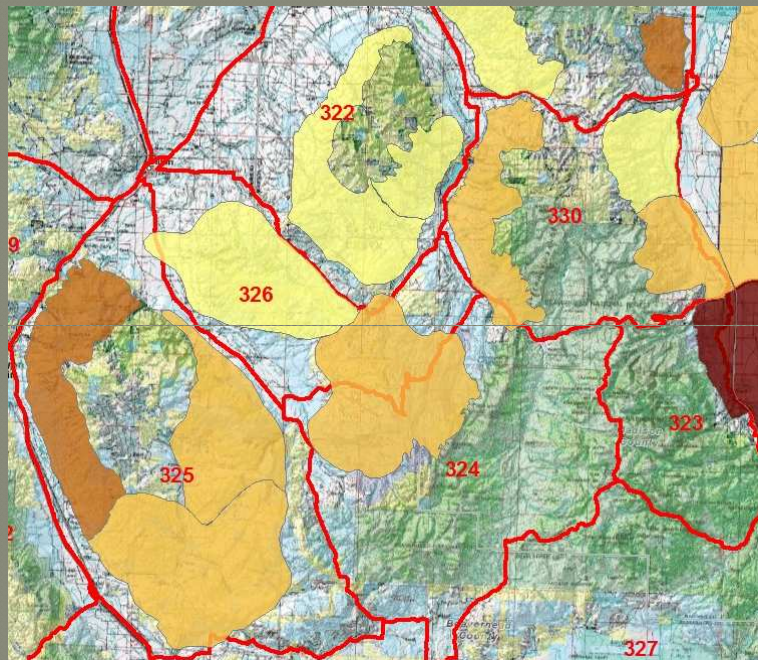
# Densities

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- Recall that density is a fraction of number of elk divided by winter range area
- Small winter range may mean high density even where elk are declining
- Important to know other issues!



# Gravelly Complex





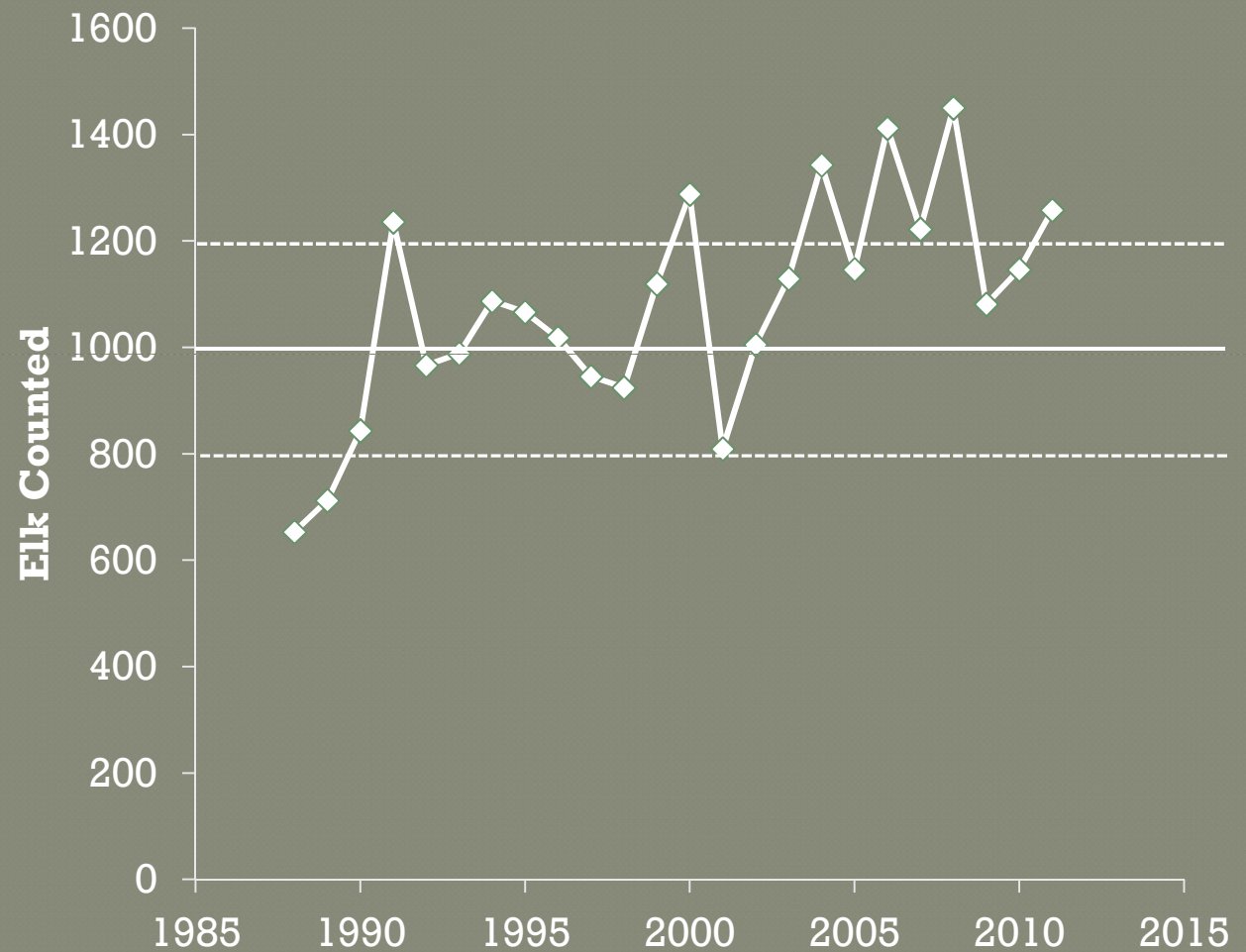
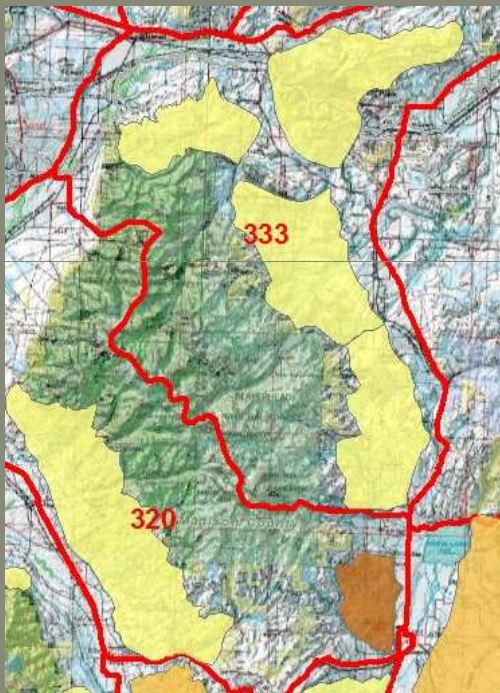
# Gravelly

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- Some access issues around Greenhorns, Blacktail Ridge, 325, 322.
- More elk on private lands than BTRL last few years – less snow/lower elevation?
- Have used elk herder to move elk from private to BTRL WMA's (brucellosis)
- 325 “harboring” situation, not able to manage elk . Neighboring landowners are concerned about brucellosis risk.



# Tobacco Roots





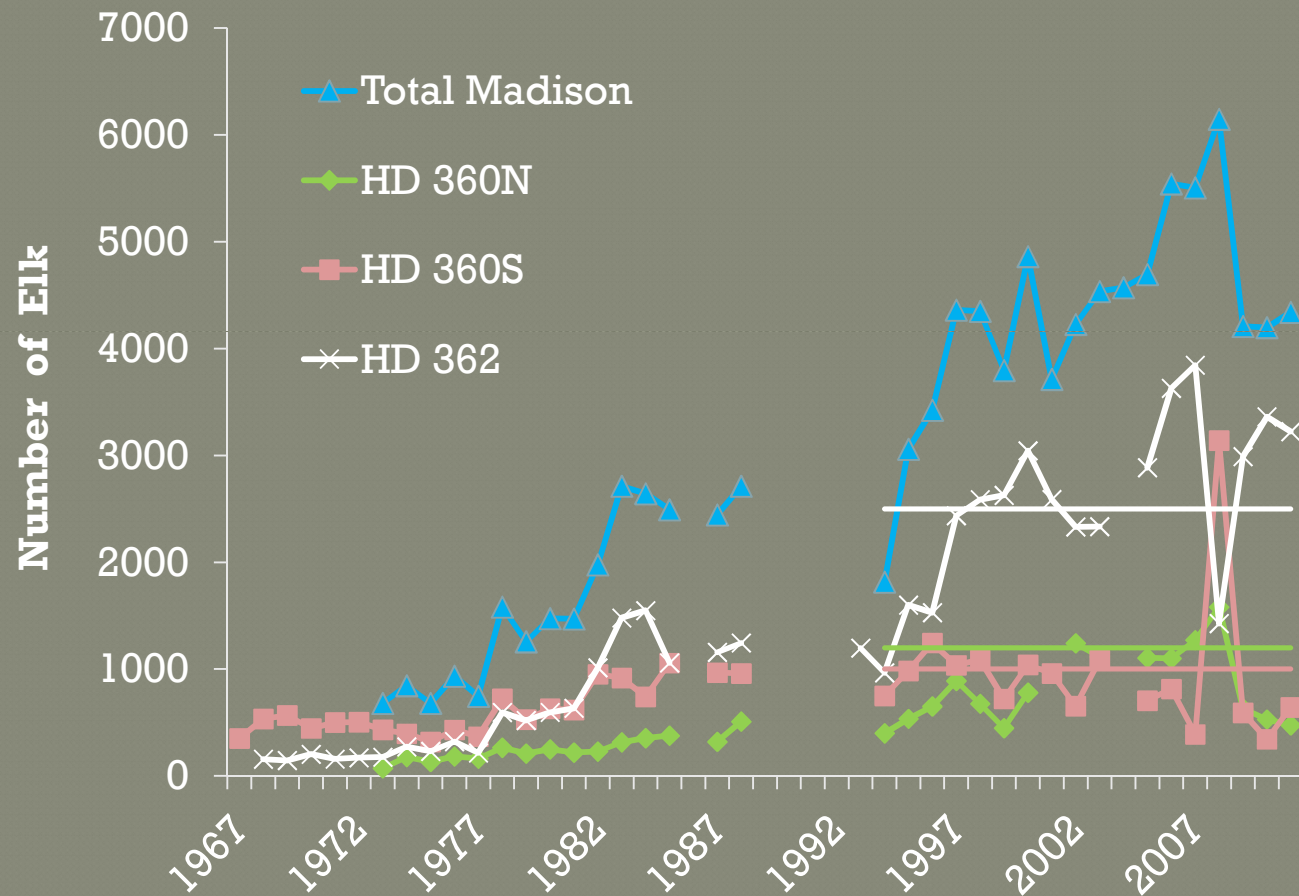
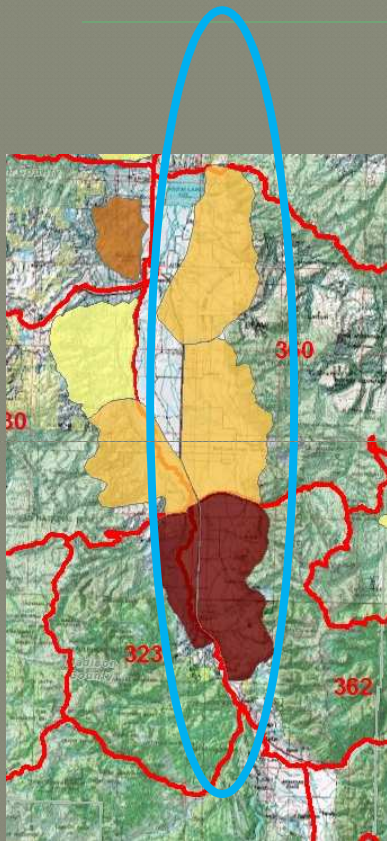
# Tobacco Roots

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- BTB/Antlerless season-long, some B tags
- Hunter access can be difficult. Numbers determined by landowner tolerance.  
Winter range = private
- Game damage has not been significant for a few years. No herders, etc.



# Madison Valley





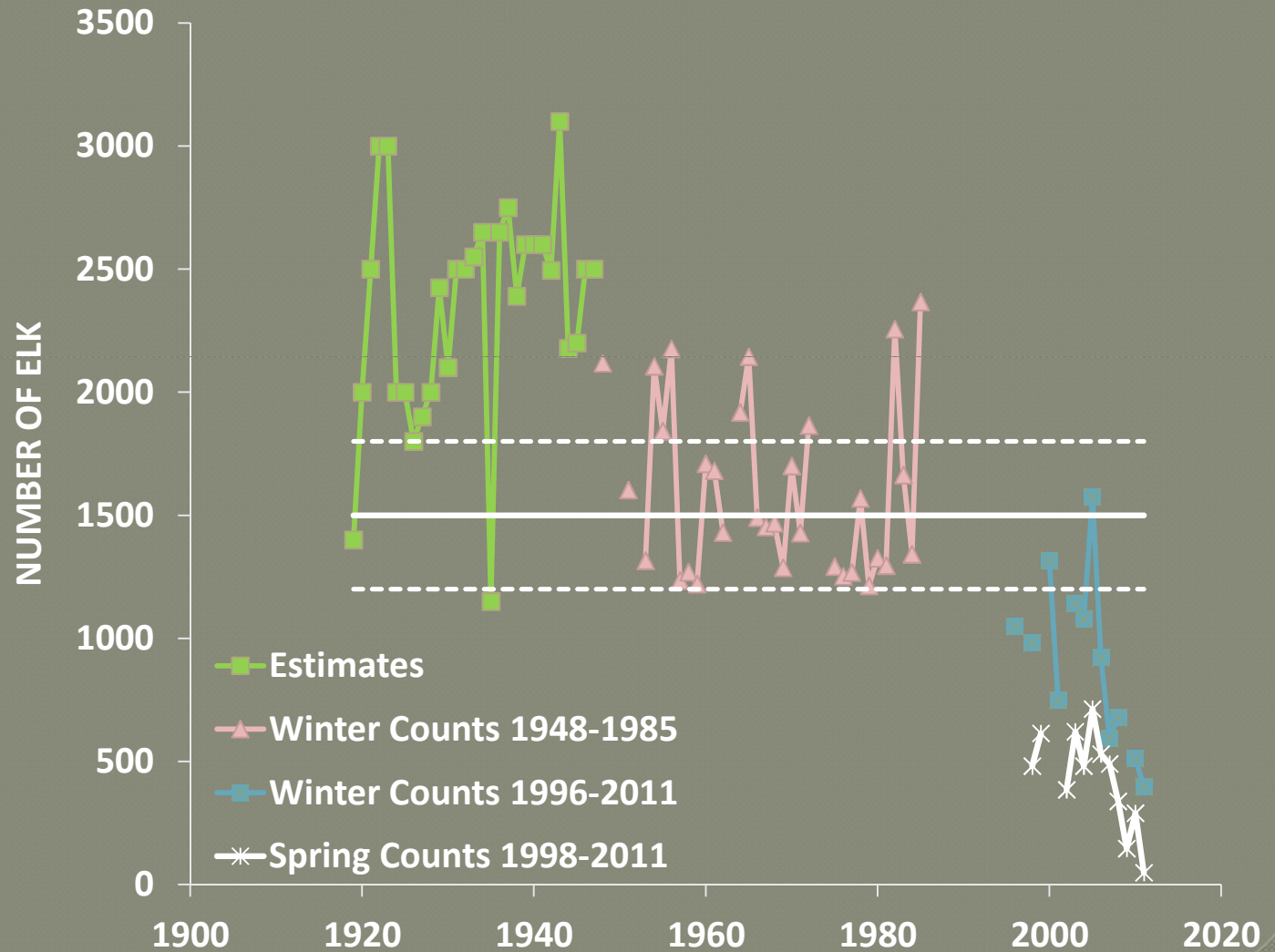
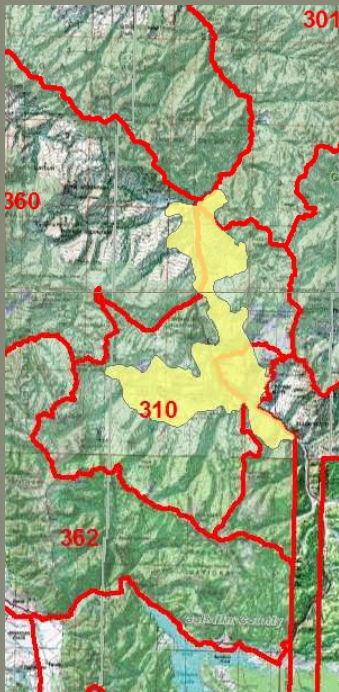
# Madison Valley

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- 2 of 3 subpopulations below objective
- Stable to declining trend
- Overlap with wintering cattle
  - Brucellosis
  - Competition
- Yearly game damage hunts (100-200 elk)
- “Elk Herder”



# Gallatin Canyon





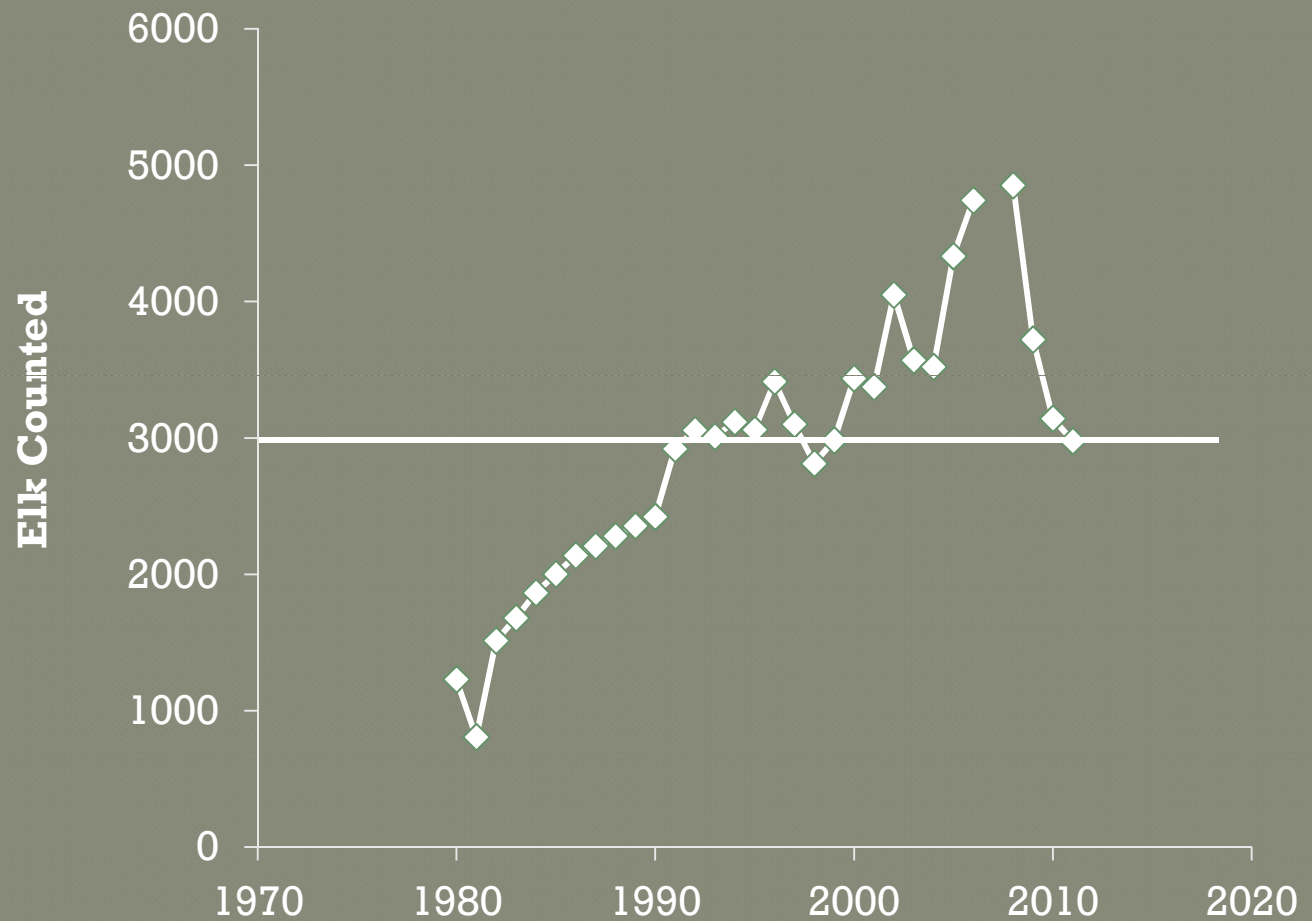
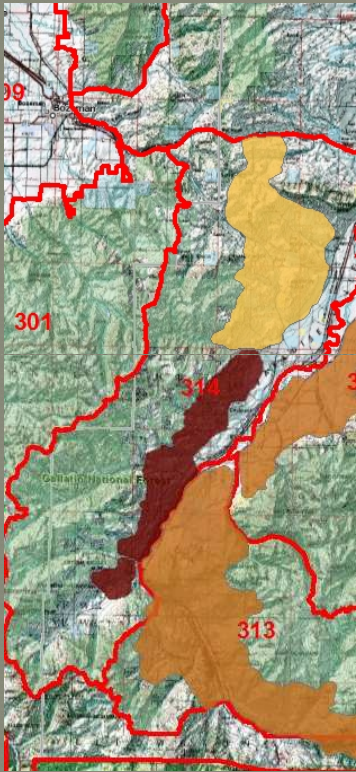
# Gallatin Canyon

- ◉ Declining population
- ◉ 75% below objective
- ◉ No cattle, no game damage
- ◉ Largest challenge: predation





# W. Paradise Valley (HD 314)





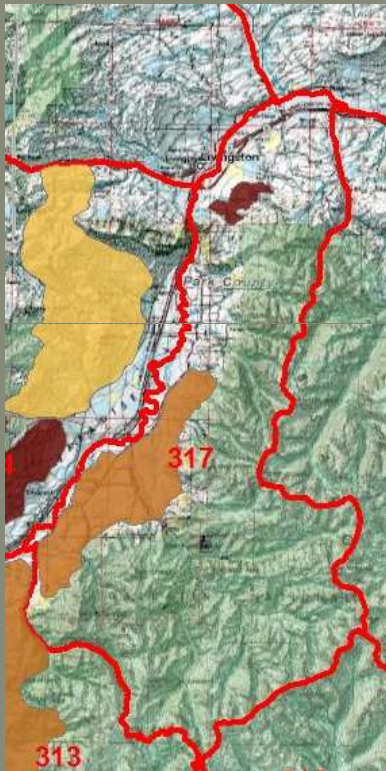
## W. Paradise Valley (HD 314)

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- Most elk are in north: density is lower
- Years of liberal hunting (1,000 B licenses) did reduce this herd
- Declining trend → proposed general license BTB only (with adjustable B's)
- Few game damage issues, but eligibility is limited.
- Increasing predator densities (wolf, grizzly, mountain lion)



# E. Paradise Valley (HD 317)





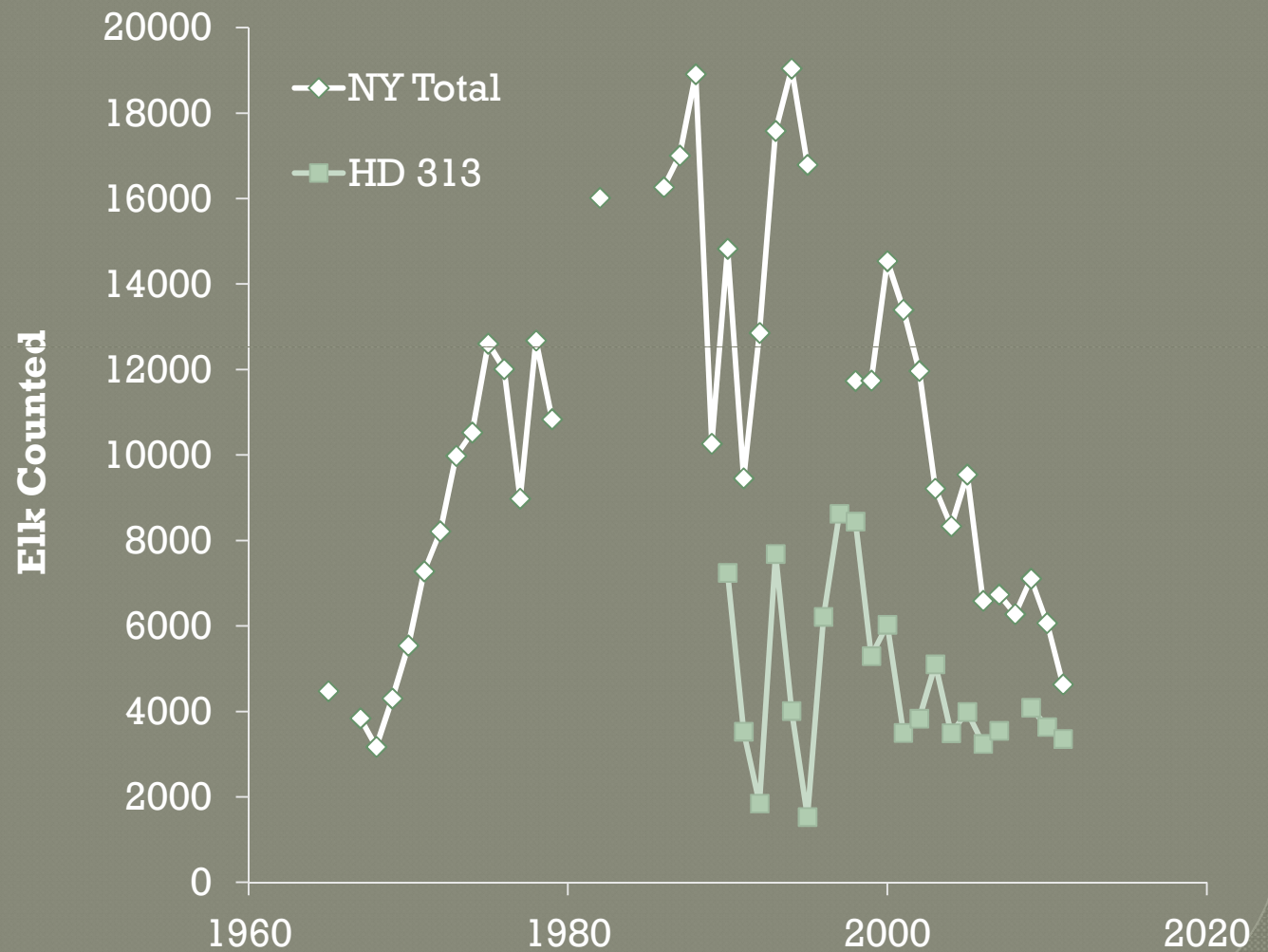
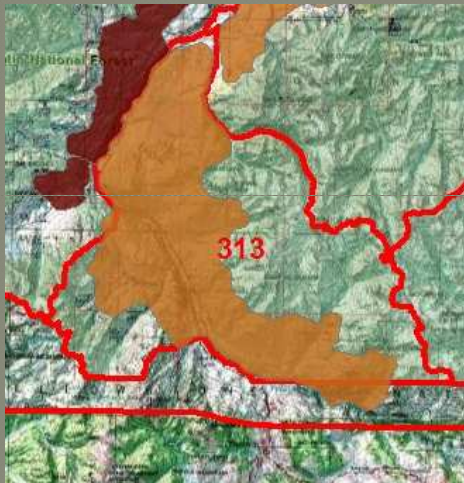
## E. Paradise Valley (HD 317)

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- Stable population, at objective (900 elk)
- Some game damage. Elk are close to cattle on winter range (narrow winter range)



# Northern Yellowstone





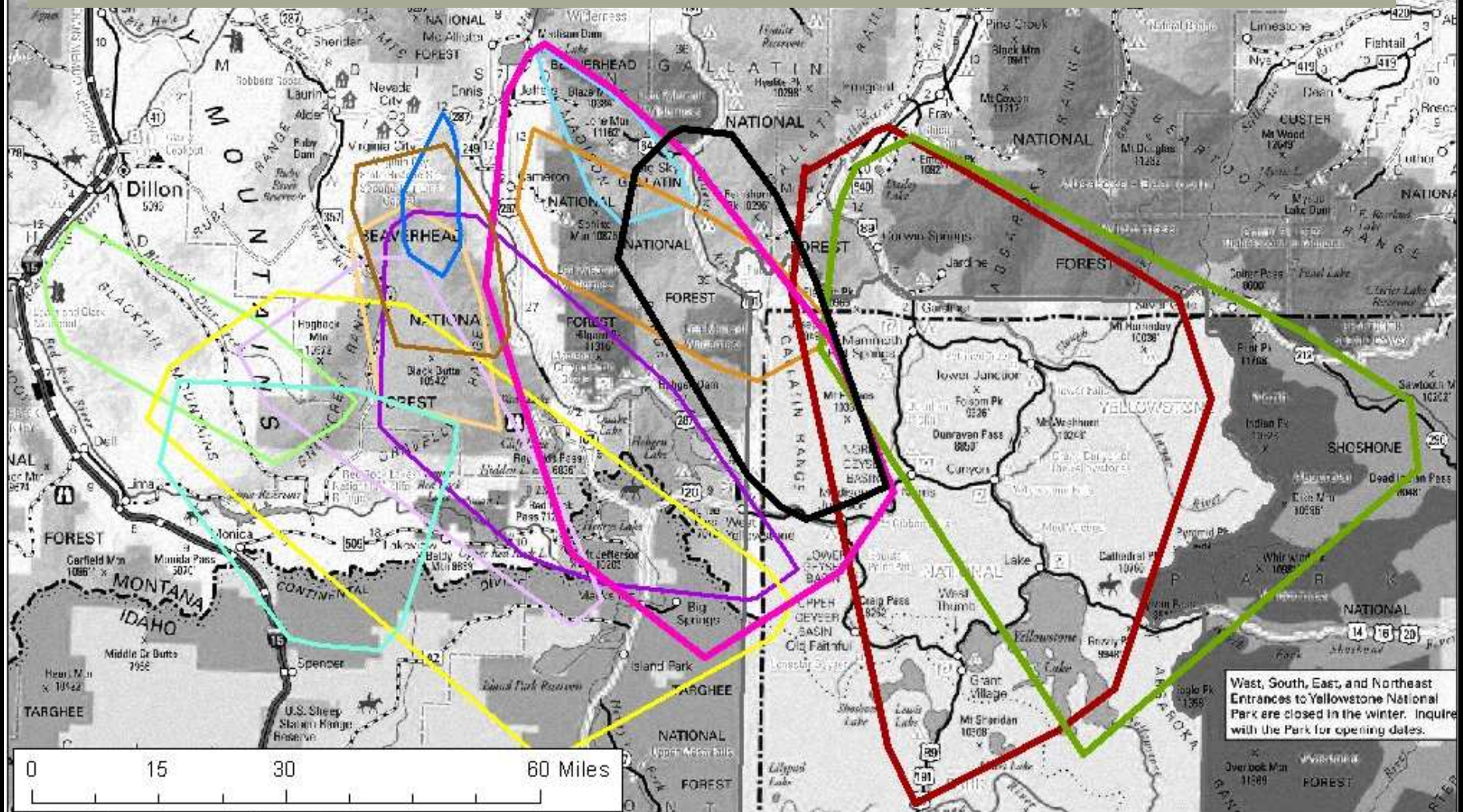
# Northern Yellowstone

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- Years of late hunts 1980's-early 2000's
- Hunting reduced mid-2000's, late hunts ceased 2009
- Proposed BTB by permit only (unlimited)
- Predation is a major consideration
- Increasing brucellosis concern but little game damage outside of YNP
- Note increasing proportion wintering outside YNP



# But Winter Range is only Part of the Story!



## MINIMUM CONVEX POLYGONS FROM FEMALE ELK

n = 8	Blacktail Ridge	n = 3	Axolotol Lake	n = 33	Robb Ledford	n = 201	Wall Creek	n = 28	HD 313 1984-87
n = 11	Basin-Sage Cr	n = 23	Cherry-Morgan Cr.	n = 8	Jumping Horse	n = 43	HD 362	n = 43	HD 313 2007-08
n = 184	Blacktail	n = 11	Warm Springs Cr	n = 5	Bear Creek	n = 51	Gallatin		



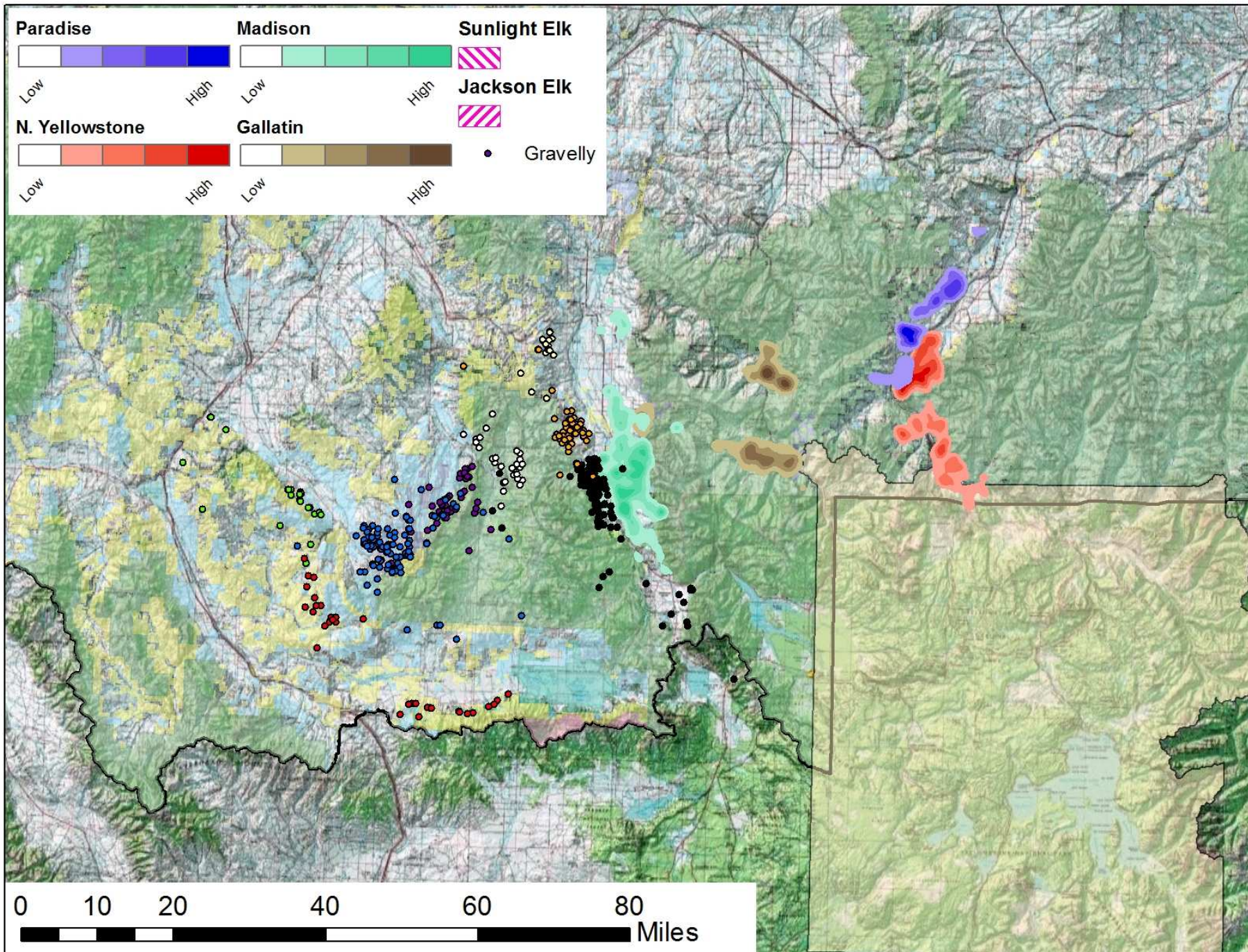


# Movement Data

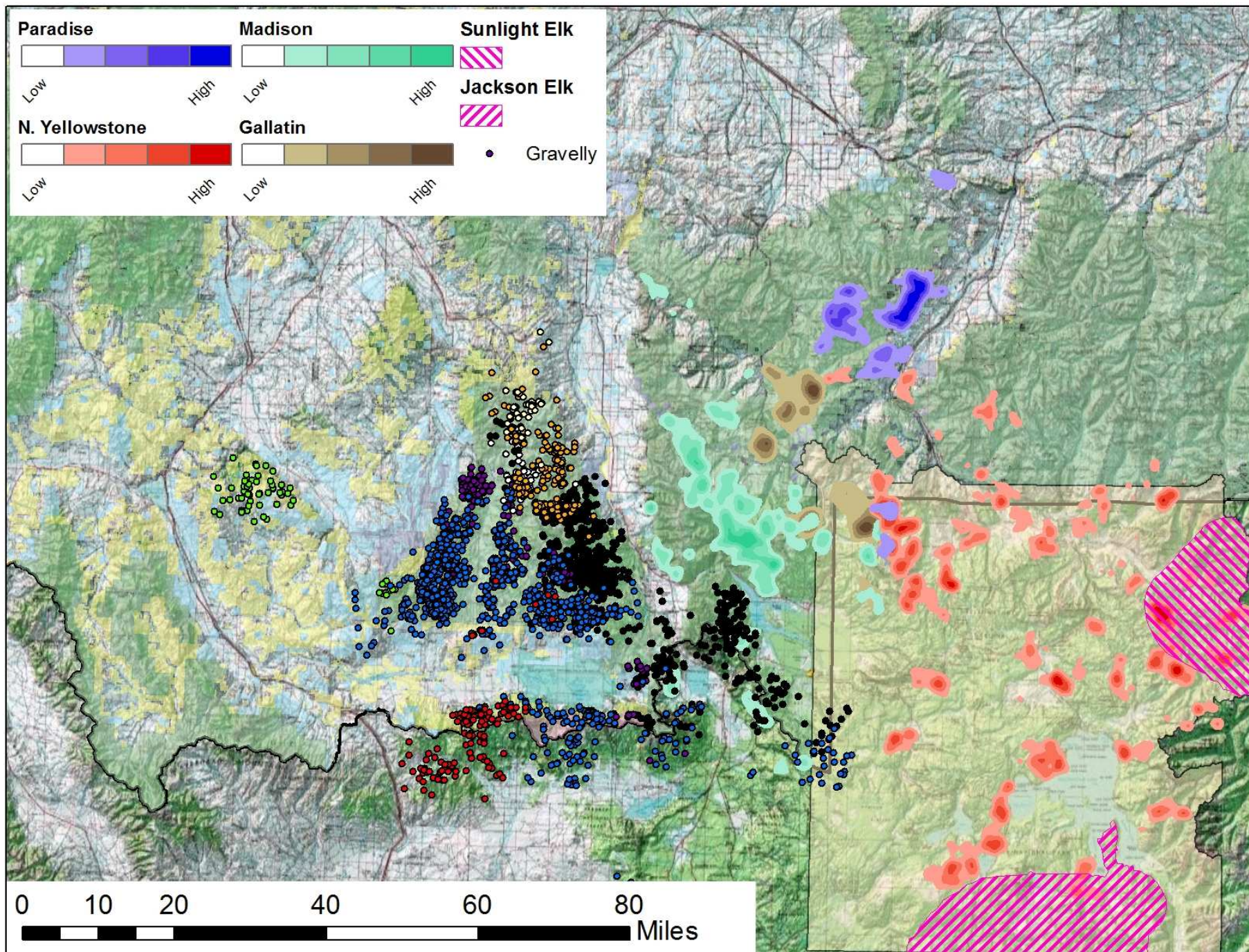
- GPS collars (W. Paradise, N. Yellowstone, Gallatin, Madison) 2002-2009
- VHF Telemetry Gravellies 1987-1998













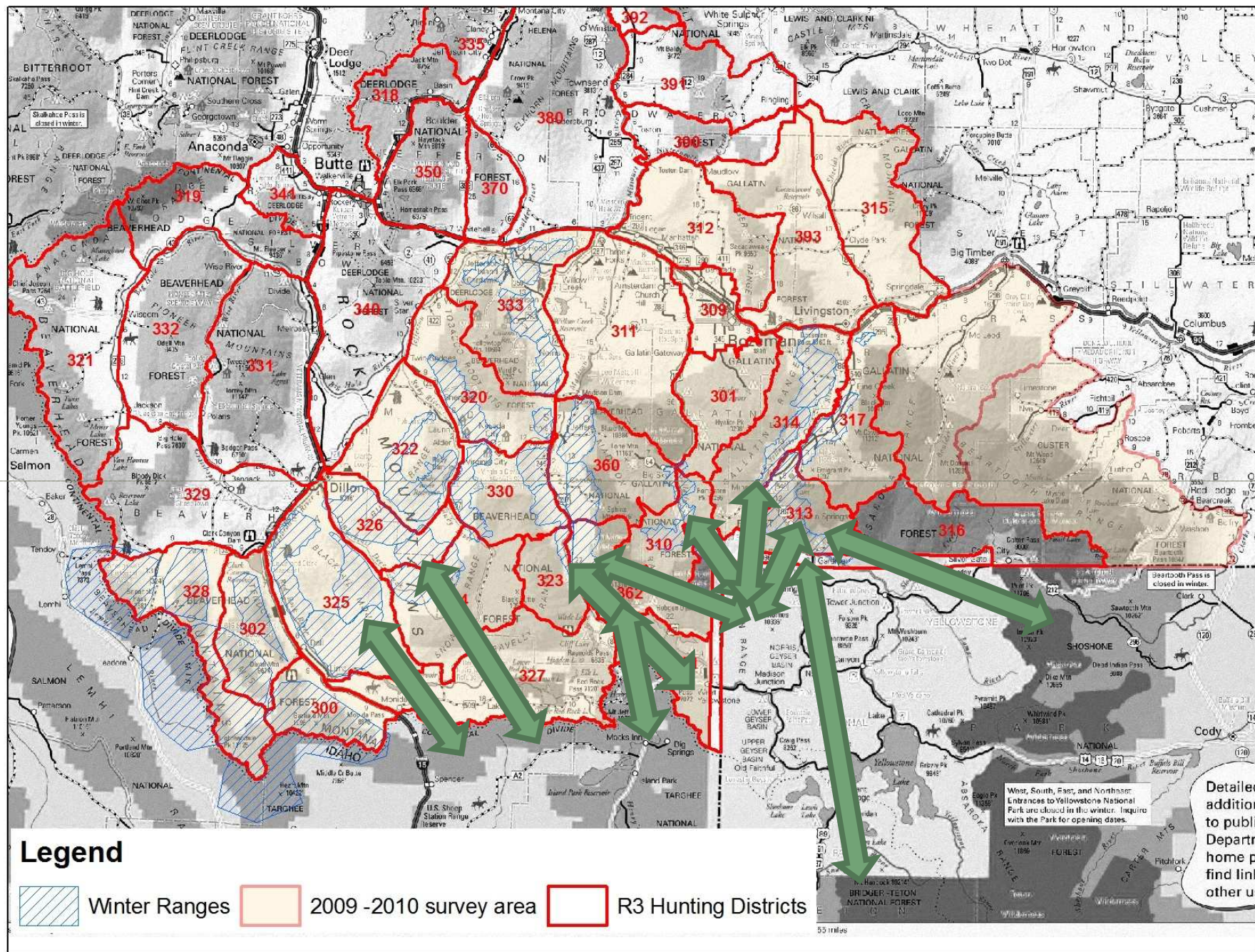
# Elk Movements

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- Within telemetry areas:
  - Winter ranges = 16% of total range\*
  - 41% of total range\* outside MT (YNP, ID, WY)
- Within Montana:
  - 76% of range\* is PUBLIC LAND
  - 24% of range\* is PRIVATE LAND

*\*Rough summaries based on polygon encompassing all elk GPS/VHF data in all areas*







# Elk Movements

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- Populations are connected throughout MT, ID, WY
- Total herd range is over an enormous spatial area, including many public lands
- Winter ranges often overlap private lands
- Reduced tolerance for elk on their winter ranges will adversely affect hunting opportunity and herd survival



# Acknowledgements

**MFWP personnel:** Kurt Alt, Mark Atkinson, Neil Anderson, Keith Aune, Bob Brannon, John Cada, Keri Carson, Claire Gower, Justin Gude, Kevin Hughes, Craig Jourdonnais, Fred King, Tom Lemke, Terry Lonner, Karen Loveless, Jennifer Ramsey, Mike Ross, Julee Shamhart, Graham Taylor, John Vore, Harry Whitney

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